

Fall/Winter 2010



## Community Presentation

*IN THE FUTURE, COPPER WILL COME FROM A COTTON FIELD*



# Hunter Dickinson and Curis Resources

- Curis Resources Ltd., and its wholly owned subsidiary, Curis Resources (Arizona) Inc., are part of the Hunter Dickinson Inc. (HDI) group of companies headquartered in Vancouver, BC, Canada.
- HDI has been in business for more than 25 years and is one of the largest independent mineral exploration and mining groups in Canada.
- HDI has a world-wide presence, including ownership of mineral development properties on five continents, and operating mines on two continents.
- HDI companies are known as leaders in ensuring the health and safety of workers, being good stewards of the environment and promoting responsible mineral development principles.

# Curis Resources Ltd.

## PRINCIPLES OF RESPONSIBLE MINERAL DEVELOPMENT

Curis is committed to working shoulder to shoulder with all stakeholders to achieve responsible development of the Florence Copper Project and contribute to the sustainability of the Florence community. All Curis activities are guided by the following principles:

### Health and Safety

We ensure our activities protect the health and safety of our employees and contractors, and of the communities in which we work.

### Stakeholder Engagement

We engage with governments, communities, indigenous peoples, organizations, groups and individuals on the basis of respect, fairness, transparency, and meaningful consultation and participation.

### Community Development

We establish productive local partnerships to contribute to achieving development goals identified by communities, to address local priorities and concerns, and to ensure communities benefit to the greatest degree possible from our activities.

### Environment and Society

We apply environmental and social best management practices in the planning, design and implementation of our activities, from exploration through to closure of our mining operations. We meet or exceed regulatory requirements in the jurisdictions in which we work.

### Resource Use

We use land, water and energy resources responsibly, strive to maintain the integrity and diversity of ecological systems, and apply integrated approaches to land use.

### Human Rights

We respect human rights principles, as well as local cultures, customs and values, in our dealings with employees, communities and other stakeholders.

### Labor Conditions

We provide fair treatment, non-discrimination and equal opportunity for our employees, and comply with labor and employment laws in the jurisdictions in which we work. We strive for excellence in relations between management and employees.

Curis integrates these Principles of *Responsible Mineral Development* within corporate management and decision-making, and will work to continually improve its performance. From project acquisitions and exploration through to project development and closure, the company will assess the financial, social and environmental benefits and risks of its business decisions. Activities are consistent with international best standards, codes and practices that relate to mineral development around the world.

# Management and Advisors

## **Michael McPhie (M.Sc., B.Sc., QEP) President & Chief Executive Officer**

Michael McPhie is a senior mining executive with more than 20 years of operational and project development experience. He has served as President & CEO of the Mining Association of BC and as a senior director with Natural Resources Canada. Michael is also currently Chair of the Board of Governors of the British Columbia Institute of Technology.

## **Bernard Tan (MBA, B.Comm., CA) Chief Financial Officer**

Bernard Tan has more than 10 years experience in financial reporting and has worked with various medium and large Canadian and U.S. public corporations.

## **Mel Lawson (B.Sc. Eng.) Vice President, Project Development**

Mel Lawson has more than 40 years project development, operations and management experience in the mining industry. His background includes feasibility studies, project permitting, contract preparation, construction management, project start-up, policy development and administration, on both underground and surface operations. He has worked on projects throughout Canada, the U.S. and New Zealand.

## **Rustyn Sherer (B.Sc., MBA) Community Relations Manager**

Rustyn Sherer joined the Florence Copper Project from the Queen Creek Chamber of Commerce, where he held the position of President and Executive Director. Rustyn was also responsible for operating the Office of Tourism and the Business Retention and Expansion Center for the Town of Queen Creek.

## **Loretta Ford (M.Sc., B.Sc., P.Ag.) Senior Manager, Environment & Sustainability**

Loretta Ford has more than 20 years experience managing large and small scale environment programs for projects across North America, ranging from baseline studies to impact analysis. Her work has encompassed all facets of the industry, including mine inspection for the British Columbia government, environmental consulting and providing guidance to mining companies.

## **John Kline (B.Sc., MA) Senior Advisor, ISCR Operations**

John is a Metallurgist and Chemist and is a 25-year veteran of BHP Billiton. John was the former Project Manager for BHP on the Florence Copper Project and was responsible for the BHP San Manuel ISCR operations also in Arizona.

## **Dodi Freeman Community Affairs Advisor**

Dolores "Dodi" Freeman is a longstanding member of the Florence community and joined the Florence Copper Project following more than 25 years with the Pinal County Federal Credit Union. Dodi has sat on numerous boards, including the Florence Greater Chamber of Commerce and the Florence Rotary Club.



# Key Consultants

**Brown and Caldwell**

(Environmental/Groundwater)

Brown and Caldwell is a full-service environmental engineering and consulting firm with 60+ years experience working with municipal, federal and private agencies to overcome challenging environmental obstacles. Brown and Caldwell consultants designed and undertook environmental study programs that secured many of the permitting entitlements associated with the Florence Copper Project.

**Schlumberger**

(Well design/engineering)

Schlumberger is a leading services provider, trusted to deliver superior results and improved E&P performance for natural resource companies around the world.

**Ray Huff and Associates**

(ISCR Specialists)

Ray Huff and Associates are specialists in in-situ mineral extraction, well design and operations.

**SRK Consulting**

(Engineering/Geology)

SRK is an independent consulting practice that provides professional services at all stages of the mineral development and mining process, from exploration right through to Feasibility and mine closure. Staff include leading specialists in each field of science and engineering.

**M3 Engineering**

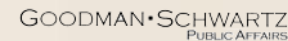
(Process Engineering/SX/EW Design)

M3 is leading mineral process engineering and plant design firm based in Tucson, Arizona.

**Highground**

(Public Affairs Consulting)

Highground is noted as one of Arizona's top ranked media, public affairs and government relations consulting firms.

**Goodman and Schwartz**

(Government/Public Affairs)

Goodman Schwartz Public Affairs provides government relations and public affairs services based on extensive experience and service in state, regional and local government.

**Western Cultural Resource Management**

(Cultural Resource Management)

Western Cultural Resource Management is an independent consulting firm that offers a full complement of cultural resource consulting services across the Western United States.

**Pew and Lake**

(Land Use/Legal)

Pew and Lake provides legal services to the Florence Copper Project, focusing on areas of land use, zoning law, real estate development and transactions, and business organizations.

# Summary Points

- Curis plans to invest ~\$250 million in the Florence Copper Project over the next three years.
- In-situ recovery (ISR) of minerals is a technology that has been used extensively in the US and internationally for more than 40 years.
- In full production, the Florence Copper Project will employ between 150 and 170 people directly and support hundreds of additional spin off jobs in region.
- The economy of Florence will benefit by >\$17 million/year as a result of operation of the Florence Copper Project.
- Local economic benefits include nearly \$8 million/year in local government revenues. This is in addition to tens of millions in taxes and royalties that will be paid annually to County, State and Federal governments.
- There will be no adverse effect on regional groundwater quality or availability as a result of the Florence Copper Project.
- Following BHP's production test in 1998, there has been > 12 years of quarterly water quality monitoring data from 31 monitoring wells that have conclusively demonstrated that groundwater quality can be fully protected during the in-situ recovery of copper.
- Curis deeply respects the proud history and future vision of the Town of Florence and its residents.

# The Florence Copper Project is not a Traditional “Mine”

- There is no open pit
- There are no tailings dams
- There are no waste rock storage areas
- There are no smelters or significant air emissions
- There is no blasting, large haul trucks or use of explosives
- Post operations the land can be used to support agriculture, residential or community amenities



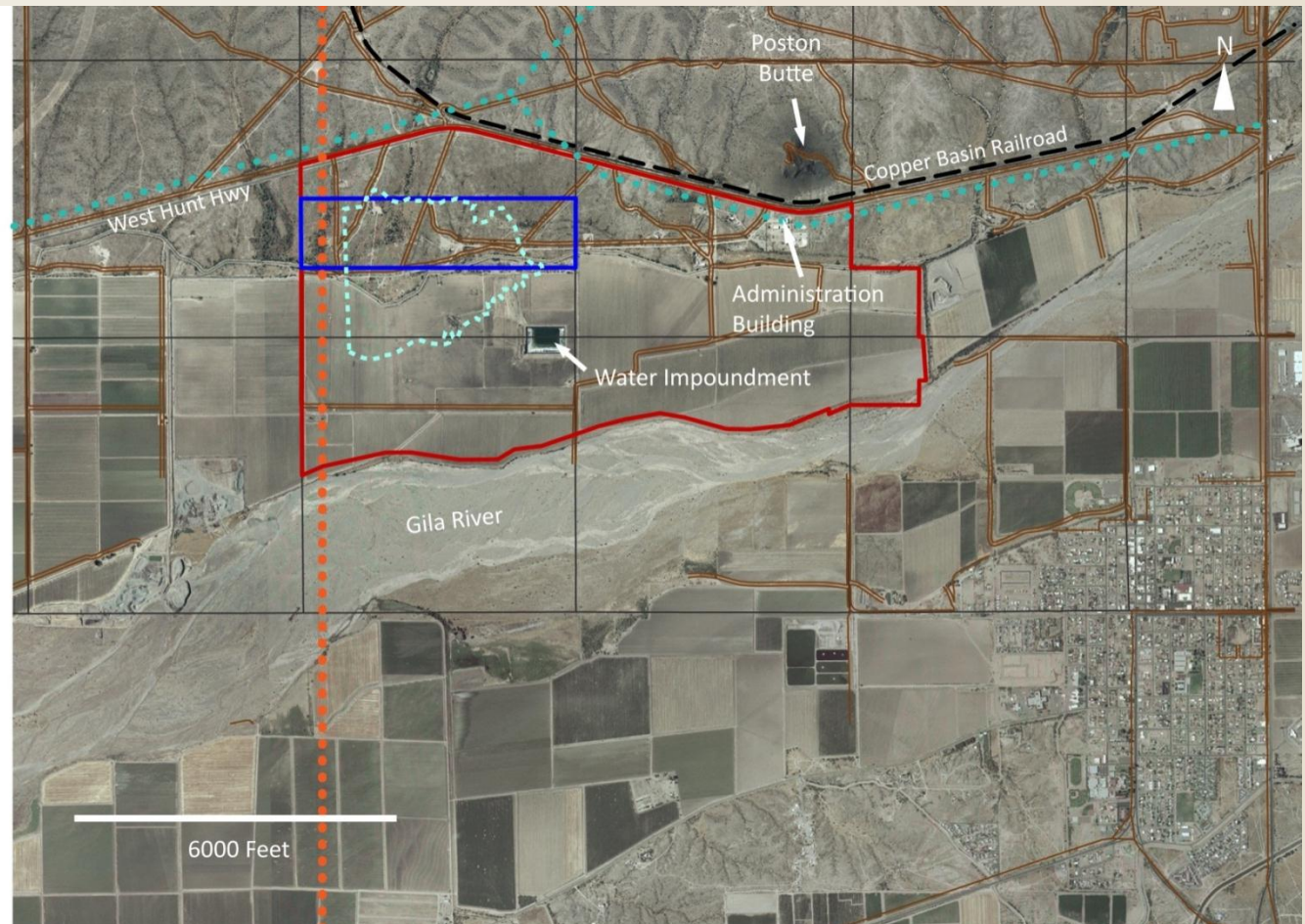
# Florence Copper Project History

<b>1960's</b>	American Smelting & Refining Co (ASARCO) undertakes early exploration
<b>1970</b>	Continental Oil Company (Conoco) records first copper intercepts
<b>1972</b>	Conoco constructs two 700' shafts and one mile of cross-cuts Test mines 50,000 tons of ore On-site metallurgical testing via milling, flotation and vat leaching plant
<b>1992-1996</b>	Acquired by Magma Copper Company Prefeasibility studies to determine optimum mining method Metallurgical and materials property testing Focus shifts to in-situ copper recovery (ISCR) and SX-EW processing
<b>1996-1998</b>	Magma acquired by BHP Copper (Florence Copper, Inc.) Geological, hydrogeological, metallurgical & hydrochemical test work ISCR pilot test completed – including installation of 67 injection, production and environmental monitoring wells
<b>1999</b>	BHP Copper completes Prefeasibility Study Measured & Indicated resource (429 million tons) Major environmental permits in place for ISCR production
<b>2000</b>	Project deferred due to low metal prices Property acquired by Merrill Ranch Investments LLC
<b>2009</b>	HDI acquires Florence Copper Project patented land
<b>2010</b>	HDI acquires State mineral leases. Curis Resources Ltd. formed and senior project team assembled to advance Florence Copper Project towards development Published 43-101 Technical Report in May Curis conducts community outreach
<b>1996-2010</b>	Groundwater quality monitored every three months Results demonstrate no impairment of water quality from historic ISCR activities



# Curis Property and Layout

- Curis Resources (Arizona) Inc. Patented Land
- State Mineral Lease
- ⋯ Outline of deposit @0.05% TCu Cut-off at the depth of 700ft ASL
- ⋯ Powerline (500 kV)
- ⋯ Powerline (125 kV)



# In-Situ Recovery – Understood and Proven Technology

- ISR is a low-cost, environmentally sound process of extracting minerals from deposits not amenable to conventional mining
- In-situ recovery has been used extensively around the world for decades to recover metals and salts
- 30% of world wide and 90% of current U.S.  $U_3O_8$  production utilizes ISR technology (i.e. Smith Ranch operating since 1997)
- Copper has/is being commercially mined in-situ in Arizona as adjuncts to conventional mines (BHP, Freeport)

## Advantages of ISCR:

- Low operating costs
- Low capital costs
- High profit margin potential
- Produce pure copper cathode on site
- Small environmental foot print
- Post operating site re-development opportunities

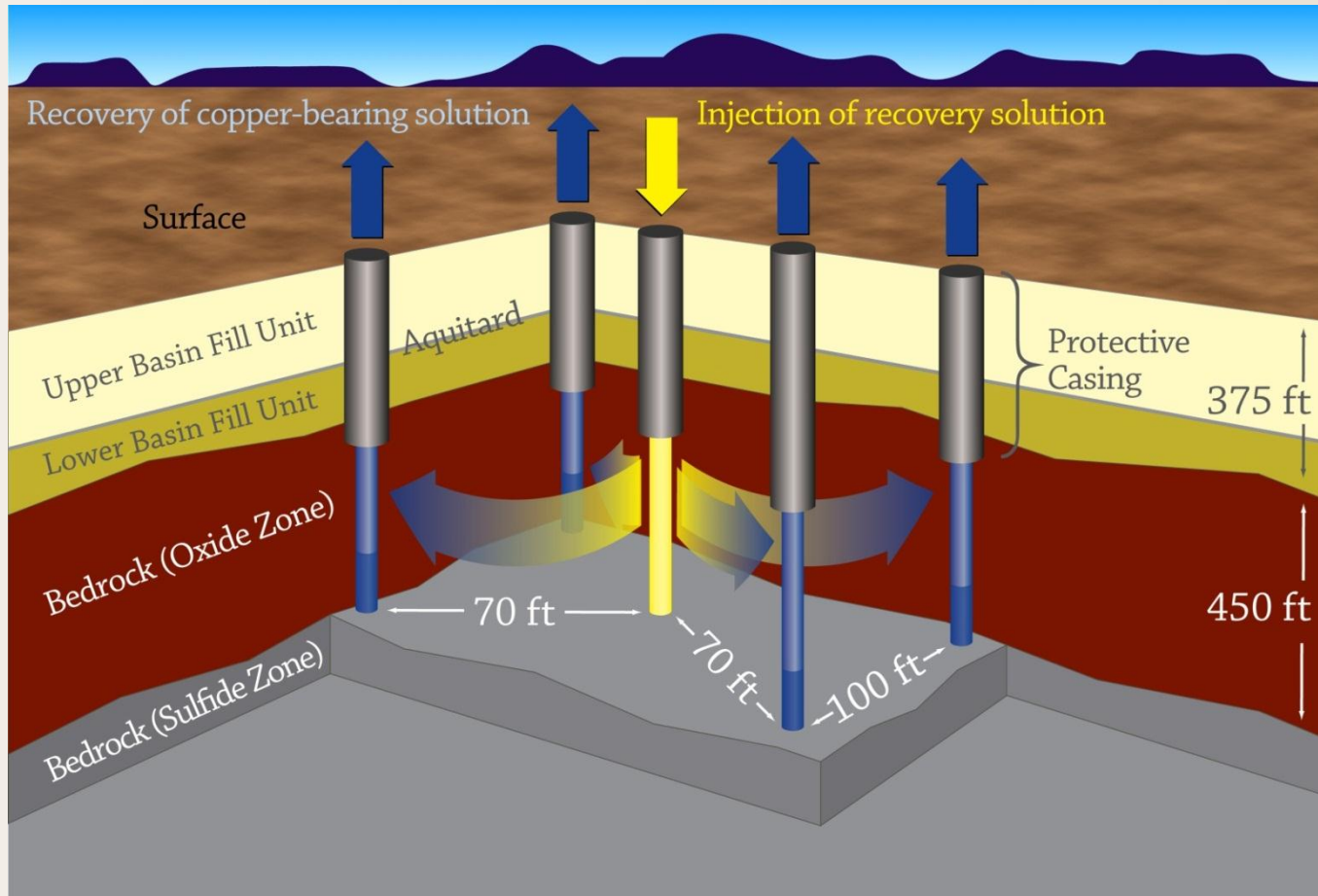


Example of an In-Situ Recovery Project

# In-Situ Copper Recovery (ISCR)

- ISCR allows for the recovery of valuable copper minerals without traditional mining related land disturbances
  - **NO** open pits, waste rock facilities or tailings storage
- A low pH solution is injected into a soluble copper orebody
  - Solution strength is comparable to standard household vinegar
- Copper-rich solution is pumped to surface via recovery wells
- Well orientation and pumping rates designed to ensure 'hydraulic control'
  - Solution recovery rates are typically higher than injection rates
- Excess water stored in water impoundments or treated to be used as potable water
- Monitoring wells ensure groundwater quality is maintained

# Hydraulic Control

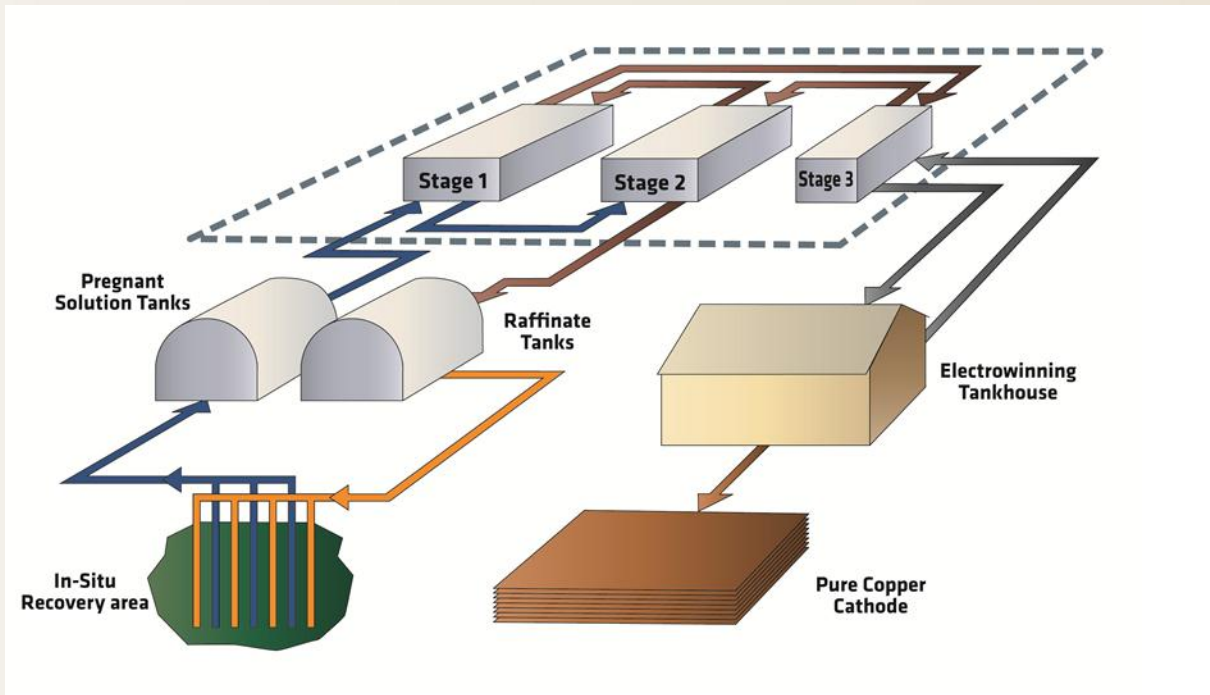


A typical ISCR "5-Spot" well arrangement



# On-Site Copper Production

- Standard solvent extraction and electro-winning (SX/EW) technology has been in use for more than 40 years and there are numerous plants currently operating in the State of Arizona
- 99.999% pure copper cathode will be produced on-site





# Production Facilities

- Full ISCR production at the Florence Copper Project will require:
  - installation of an ISCR well-field
  - upgrading and expansion of solution storage tanks
  - construction of additional water impoundments
  - construction of an SX/EW plant
  - associated administration, transportation and power infrastructure



Solution Storage Tanks



Water Impoundment



ISCR Well Field

# Site Before, During and After ISCR Operations

Current Site, Looking South



During Operations



After Reclamation



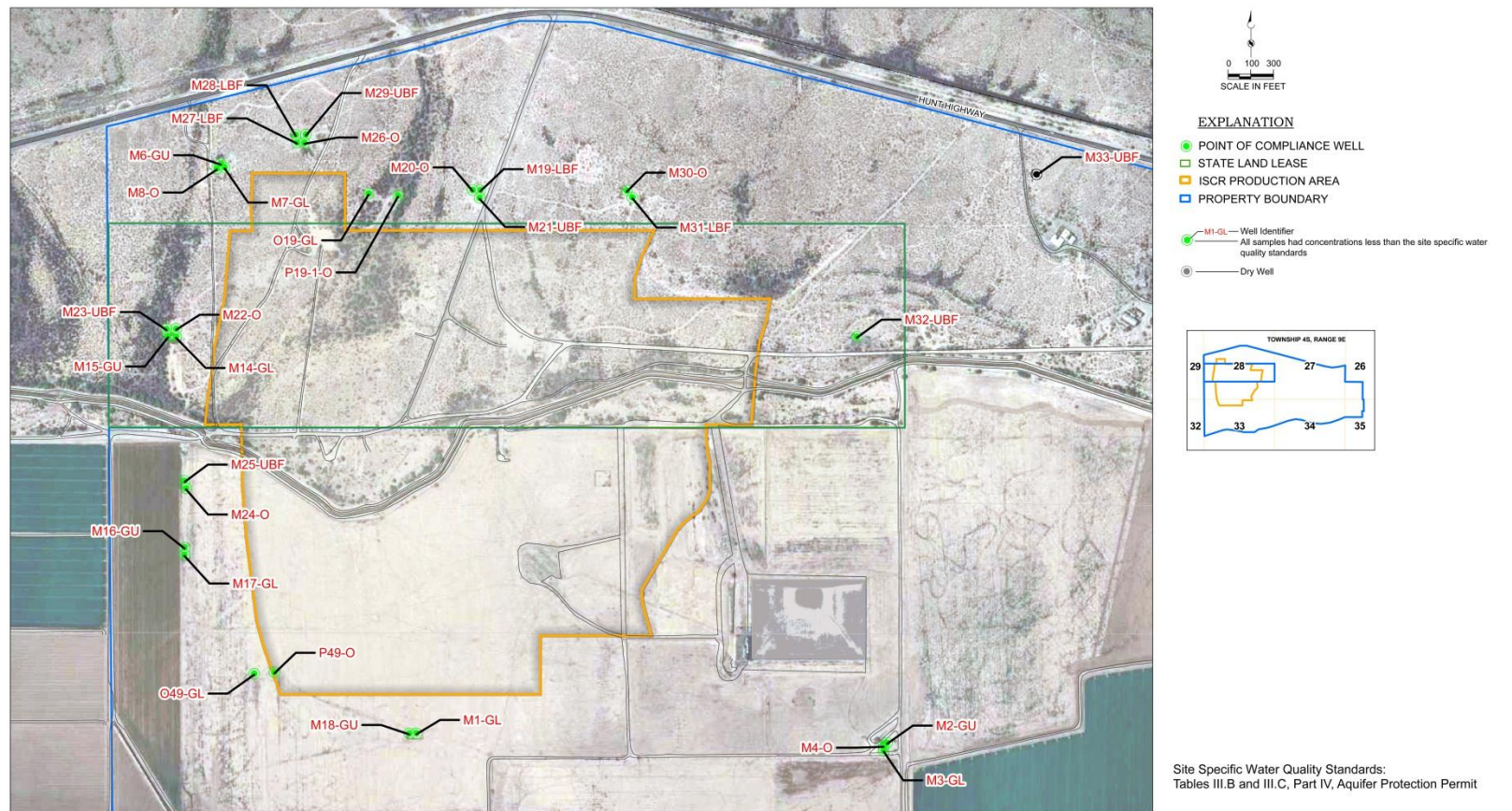
# Water Quality

- Curis expects no adverse impact to regional groundwater quality or availability
- 14 years of water quality monitoring at 31 'point of compliance' wells prior to, during and following the 1997 BHP ISCR production test conclusively show no impact to groundwater quality or availability
- ISCR technology and practices have been shown to have no long-term effects on water quality
- During full operations, monitoring program will be expanded and enhanced
- All site-specific water quality standards will be enforced by the Arizona Department of Environmental Quality and over past 14 years have been consistently met



# Water Quality

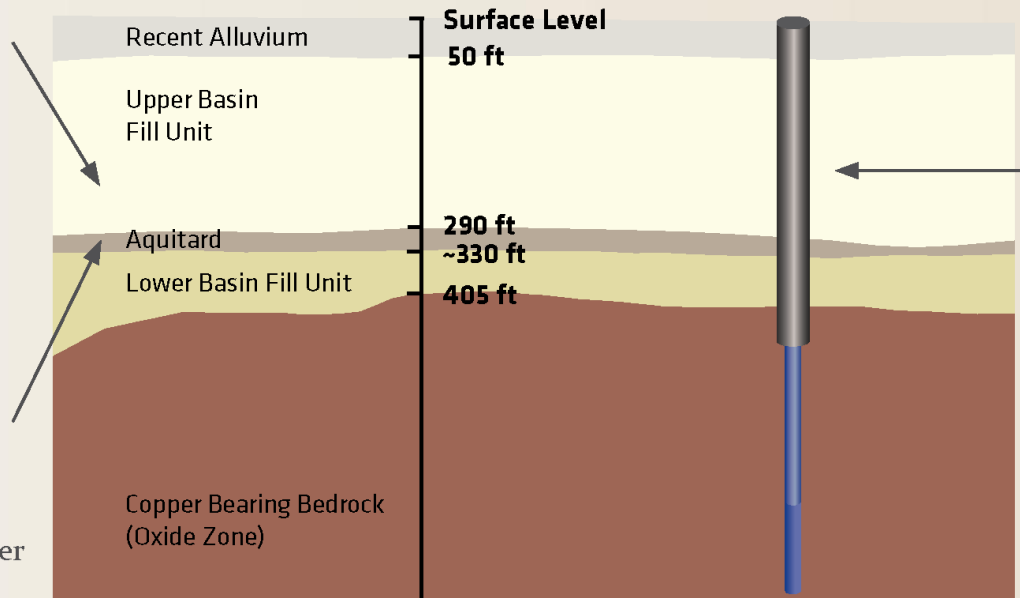
- 31 monitoring wells are sampled on a regular basis to ensure water quality is protected



# Protecting Water Quality

Regional and local potable water is obtained through wells in the upper basin fill unit/gravel layer. Groundwater quality and quantity in this area, and the surrounding region, will remain fully protected.

Clay aquitard, the middle fine grained unit, acts as a protective barrier to water quality in upper groundwater zone.



Injection and recovery wells used in ISCR production are encased in a high impact, corrosive resistant (EPA/ADEQ approved) pipe. The wells are further protected by a full length concrete casing that ends 40 ft into the copper bearing bedrock (oxide) zone.

*Florence Copper Project geology and groundwater quality protection*



# Agriculture & Water Use

- The ISCR permit area at Florence is 216 acres. Only a portion of this area is in use at any one time.
- ISCR operations will utilize between 1,150 – 1,800 acre feet of water per year when in full production
- Agricultural production (2-3 harvests of alfalfa) on 216 acres would require between 1,700 - 2,600 acre feet of water per year
- Currently, 423 acres of the project site are used for agricultural production
- It is expected that agricultural cultivation will continue during ISCR operations



# Traffic, Dust & Air Quality

- During operations, between 150 and 170 employees and contractors are likely to travel by car to the Florence Copper Project site on a daily basis
- Shipment of equipment and supplies will require, on average, 12 truck trips per day
- Shipment of copper cathode will require, on average, three truck trips per day
- All truck and most car traffic to the Florence Copper Project site will use State highways and major arterial roads, and will not enter residential neighborhoods
- In future, Curis may explore a potential rail spur to connect to the Copper Basin Railway to the north as an alternative to trucking
- Rail alternatives will be considered in full consultation with the Town of Florence and residents
- Emissions from the SX/EW plant and dust must satisfy strict Air Quality Permit standards enforced by Pinal County and the Environmental Protection Agency (EPA)



# Closure

- ISCR production will occupy ~50 acres at a time - once copper extraction is complete, area will be progressively reclaimed
- Following ISCR operations, the Florence Copper Project site will be returned to pre-development or better conditions
- The property will be available for a number of post-closure land uses, including agriculture and residential development
- Prior to the start of operations, company must post a significant financial bond with the State of Arizona to ensure adequate financial resources are in place for property closure at all times

# Reclamation and Closure

- A reclamation and closure plan for the Florence Copper Project must be approved by the State of Arizona before ISCR operations begin
- The State of Arizona will ensure that sufficient bonding or other financial sureties are in place to responsibly close and reclaim the Florence Copper Project at any stage of its operating life
- Fresh water will be injected and recovered to 'rinse' the bedrock aquifer until groundwater returns to pre-development conditions
- All injection and recovery wells will be cemented and closed-off below ground
- Buildings, facilities and infrastructure will be removed
- Reclamation and closure activities will be progressive, such that some portions of the ISCR production area will be reclaimed while others are still in production



## Site Use after Project Completion

- The Florence Copper Project site will be returned to conditions better than those present pre-development. The property will be available for a number of other uses including agricultural and residential development.





# Cultural Resources Management Program

- Curis Resources Ltd. acknowledges the important cultural resources present within the Florence Copper Project site
- Curis has a comprehensive cultural resources management plan in place and will continue to refine and enhance this going forward
- Curis is engaging with stakeholders and government agencies to ensure that all cultural resources are treated appropriately. Parties include:
  - Ak Chin Indian Community
  - Gila River Indian Community
  - Salt River Pima Maricopa Indian Community
  - the Tohono O'odham Nation
  - Hopi Tribe
  - Environmental Protection Agency (EPA)
  - Arizona State Museum



# Project Permitting

GOVERNMENT AGENCY	PERMIT/AUTHORIZATION
United States Environmental Protection Agency (EPA)	Underground Injection Control Permit & Aquifer Exemption
	Programmatic Agreement with the Arizona State Historic Preservation Office & the Advisory Council on Historical Preservation
Arizona Department of Environmental Quality	Aquifer Protection Permit
	Arizona Pollutant Discharge Elimination System - General Permit for Stormwater Discharges
	Hazardous Waste Generator Identification Number
	Septic Tank
	401 Certification
Arizona Department of State Land	Mineral Lease
	Mining Plan of Operations
Arizona Department of Water Resources	Permit to Withdraw Groundwater for Mineral Extraction & Metallurgical Processing
	Water Rights
Arizona State Emergency Response Commission	Planning Notification
Arizona State Museum	Burial Agreement (Case No. 94-24, Arizona Revised Statutes 41-865) Arizona State Historic Preservation Office
Arizona State Mine Inspector	Mined Land Reclamation Plan
Federal Communications Commission	Radio License
Town of Florence	General Plan, Rezoning, Site Planning & Building Permits
Gila Water Commissioner	Change of Use Permit (Globe Equity 59 Decree)
Pinal County Air Quality Control District	Air Quality Permit
Pinal County Emergency Response Planning Committee	Planning Notification

# Local Capital Investment

- Curis plans to invest ~\$250 million in the Florence Copper Project over the next three years
- Near-term expenditures include:
  - engineering and environmental studies
  - project permitting
  - community outreach activities
  - site operations and administration
  - extensive contractor services
- Life of project (15-20 years) capital expenditures will be in the range of a further \$300 million



# Broader Community Investment

It is Curis' intent to work with the Town of Florence and State of Arizona on a broad local and regional community investment strategy that could include:

- support for community services and charitable organizations
- infrastructure development and renewal
- complementary partnership opportunities for economic development
- collaboration with regional education institutions for Florence-based school investment and training opportunities



## Employment & Spin-off Economic Benefits

- In full production, the Florence Copper Project is expected to employ between 150 and 170 full-time and contract positions for professional, technical, general labor and administrative staff
- An additional 20-30 positions are expected to be created in the run-up to full ISCR operations
- For each direct job created, the Florence Copper Project has the potential to support another 4.75\* indirect or induced jobs
  - Indirect jobs are those created in businesses that will provide goods and services to the Florence Copper Project
  - Induced jobs are those created by the spending of employee wages or government revenues
- Based on a multiplier of 4.75\*, the Florence Copper Project has the potential to support nearly 1,000 total jobs in the State of Arizona (direct, indirect and induced employment) for some 15-20 years
- Local benefits will include \$2.8 million/year in local business revenues and >\$6 million/year in personal income
- These jobs will create significant economic benefits for businesses within the Town of Florence and Pinal County



\* Source: The Economic Impact of the Arizona Copper Industry, 2009 (WEAC)



## Local Economic Activity

- Comprehensive local and regional economic impact study completed Fall 2010
- Economic benefits of the Florence Copper Project include:
  - Tens of millions of dollars in annual supply and service contracts to local and regional businesses
  - ~\$10M annually in direct payroll - \$6 million/year in personal income
  - Tens of millions of dollars annually in local, county, state and federal taxes
  - More than \$8 million/year in local government revenues.
  - Significant spinoff economic activity in the region
  - Economic diversification for the Town of Florence
  - High wage 'head of household' jobs

# Local Hire & Procurement

- Florence Copper Project '*Local Hire & Procurement Policy*':
- Curis and its contractors will:
  - ensure that local people receive priority consideration for employment, based on qualifications and merit;
  - ensure that local companies receive priority consideration for contract opportunities, based on qualifications and merit;
  - where possible, provide or facilitate access to training to ensure that local residents gain the skills and qualifications necessary for employment; and
  - where possible, assist local companies to identify future contract opportunities and to build the capacity necessary to benefit from these opportunities.

# Sustainability in Action at the Florence Copper Project

- Renewable energy will help power the Florence Copper Project
  - Solar energy will feature significantly at the Florence Copper Project site
  - Opportunity to use advanced passive geothermal/geo-exchange technologies to help power and cool project facilities, and provide a long-term regional energy source
- Curis has recently initiated a Florence Copper Project site recycling program
  - There are plans to expand recycling services at the site in cooperation with the Town and local community organizations
- Copper is the green metal
  - 100% recyclable
  - A renewable, sustainable resource
  - The primary conduit of electricity to homes and businesses, and an essential element in electric cars, buses and appliances

